

OCT 16 2007

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SN: 10/003,370REMARKS/ARGUMENTS

Original claims 1-11 remain in the application.

Claims 12 and 13 have been canceled without prejudice in this response.

Claims 1-13 have been rejected in this Office Action.

In the current Office Action dated July 16, 2007, the Examiner has objected claims 2, 7 and 13, for informalities. Claims 2 and 7 have been amended to overcome the Examiner's objection and claim 13 has been canceled.

Claims 1-5 and 9-10 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner has indicated that it is not clear whether applicants are claiming the subcombination of the housing or the combination of the housing and arc plates. Applicants have amended independent claims 1 and 5 to properly claim the combination of the housing and arc plate. Independent claim 9 properly claims "An apparatus for quenching an arc", which includes the combination of housing and arc plates. The housing and arc plates are both clearly and positively claimed in the body of claim 9, as they are in independent claim 6, which was not subject to the rejection. Therefore, independent claim 9 should not have been rejected under 35 U.S.C. §112, second paragraph.

Claims 12 and 13 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Maier et al. Claims 12 and 13 have been canceled without prejudice in this response.

Claims 1-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Uchida et al. in view of Madock.

The Examiner has suggested that "Uchida et al. discloses the claimed invention except for a resilient deformable stop member engaging the first end of the arc plate; and a resilient locking member engaging the second end of the arc plates; the housing being an integrally molded housing; the resilient locking member having a first end

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fixedly attached to the securing ledge and having a second end connected to the tab, the tab having an inside face for securing the arc plate in the housing; and wherein the first support member, the second support member, the first securing ledge. The second securing ledge, the stop member, and the locking member form an integral molded assembly."

Applicant contends that Uchida et al. discloses an insulator, generally defined as element 14 in the figures. The insulator includes left and right sidewalls 14a, which are generally equivalent to the first and second support members 112 and 114, as shown in Fig. 1 of the present application. Uchida also teaches slots 15, molded into the sidewalls 14a such that an end wall (clearly seen in Figures 1, 4, 7B, 9B, 10 and 14) formed from the sidewall 14a is provided for abutting the arms 2a or the arc plates 2. There is no "first securing ledge (A1) protruding from the first support member" or "second securing ledge (B1) protruding from the first support member" as the Examiner has suggested. The independent claims of the present invention clearly define the securing ledges 210, 210' as "protruding from said support member". This is clearly shown in Figures 1 and 3, where the ends of the securing ledges are shown extending outwardly from the support members 112.

The Examiner has further suggested that it would have been obvious to one skilled in the art at the time of the invention to modify Uchida by including the integrally molded stop and locking members of Madock. Applicant contends that a simple combination of the desired features of Uchida and Madock in one integrally molded part would not be an operable or acceptable solution. The housing of Madock is made of four separate parts for a reason. A mold for a molded part is generally made from two or more separable parts, which together define a void being the reverse image of the part to be molded. The molding material is injected into the mold filling the void. The two mold parts must then be separated to release the molded part. The parts of a mold for making the housing, as disclosed in Madock's Figures 1 and 7, could not be separated because there are opposing features. Madock's cantilevered portion 108 and actuator portion 114 (indicated as the resilient member and tab by the Examiner) are directly opposite the S-curved spring 104 (indicated as the stop member by the Examiner), which would not permit the mold parts to separate.

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Applicant also contends that Madock's S-curved spring 104, cantilevered portion 108 and actuator portion 114 do not meet the restrictions set forth in the claims of the present invention because they are integral parts extending from the bottom wall 12, indicated as the support member 112 of the present invention by the Examiner (Col. 3, lines 19-22 and claim 16). The claims of the present invention clearly define these elements as being "fixedly attached to said first securing ledge", which protrudes from the support member or first wall 112 or "secured in spaced relation to said first wall". Therefore, the combination of Uchida and Madock, as suggested by the Examiner, does not teach all of the limitations of the present invention as claimed.

Further, the stop members and locking members, as disclosed by Madock, require slots 110 and 112 to permit their resilience (Col. 3, lines 18-23 and Fig. 1). To conform with the teaching of Madock, these slots would be required in the sidewalls 14a of Uchida's housing. This would prohibit proper operation of the arc housing by permitting hot arc gases to escape through the side walls 14a. In a single phase or single disconnect housing this could cause a phase to ground arc resulting in significant damage to the disconnect device or an explosion. In a multi-phase arc plate housing this would cause cross-phase arcing resulting in an explosion that would destroy the device. Therefore, the Examiner's suggested combination of Uchida and Madock would produce a device that is unsafe for its intended use.

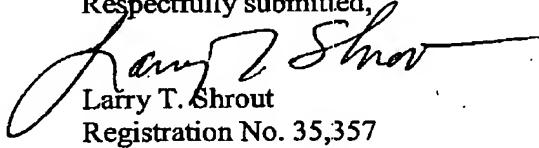
The Examiner has also stated two reasons for his suggested combination of Uchida and Madock. First, referring to Madock Col. 4, lines 31-34, the Examiner has suggested that it would substantially reduce the cost of manufacturing the housing. Madock specifically teaches in Col. 4, lines 31-34, that "because the two side walls 13 and 14 have the same configuration, they may be formed from the same mold thereby substantially reducing the cost of manufacturing the holder 10." This is not a suggestion that any combination of parts into one integral part will substantially reduce manufacturing cost. Further, if a mould could be designed to make an integral arc plate housing from the Examiner's suggested combination, it would be extremely complex and expensive. Second, referring to Madock Col. 1, lines 39-42, the Examiner has suggested that the locking members of Madock would allow "partial ejection of the arc plate from the housing so that it may be easily grasped by a user". As previously

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argued, this is not an objective of the present invention. The purpose of the arc plate housing is to confine the arc plates such that they are not easily removable once installed. If the arc plates should become damaged the housing would most likely be damaged also. Therefore, the complete arc plate housing assembly would be replaced. Further, one skilled in the art would understand that any partial removal of the arc plates would be unacceptable and dangerous. Applicant contends that there is no suggestion for the Examiner's combination in either Uchida or Madock, and further, that the device of Uchida, when modified by the teaching of Madock would produce a device that could not perform its intended function in a safe and dependable manner.

In view of the amendment of Claims 1, 2, 5 and 11, cancellation of claims 12 and 13 and the arguments provided above, it is believed that the above-identified patent application is in a condition for the issuance of a Notice of Allowance. Such action by the Examiner is respectfully requested. If, however, the Examiner is of the opinion that any of the drawings or other portions of the application are still not allowable, it will be appreciated if the Examiner will telephone the undersigned to expedite the prosecution of the application.

Respectfully submitted,



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